AMENDMENTS TO THE CLAIMS

1-25. **(Canceled)**

26. **(Currently Amended)** A standard model creating apparatus for creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the standard model creating apparatus using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the standard model creating apparatus comprising:

a reference model storing unit operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute;

a reference model selecting unit operable to select ~~at least one~~ a plurality of reference ~~model~~ models from among the plurality of reference models stored in said reference model storing unit, based on usage information regarding an attribute which is an object of speech recognition; and

a standard model creating unit operable to create the standard model by calculating statistics of the standard model using statistics of the ~~at least one reference model~~ plurality of reference models selected by said reference model selection unit,

wherein said standard model creating unit includes:

a standard model structure determining unit operable to determine a structure of the standard model which is to be created;

an initial standard model creating unit operable to determine initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating unit operable to estimate and calculate the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~ plurality of reference models.

27. **(Currently Amended)** The standard model creating apparatus according to claim 26, further comprising:

a usage information creating unit operable to create the usage information,

wherein said reference selecting unit is operable to select the ~~at least one reference model~~plurality of reference models from among the plurality of reference models stored in said reference model storing unit, based on the created usage information.

28. **(Currently Amended)** The standard model creating apparatus according to claim 26, wherein the standard model creating apparatus is connected to a terminal apparatus via a communication channel, and further comprises:

a usage information receiving unit operable to receive the usage information from the terminal apparatus,

wherein said reference model selecting unit is operable to select ~~at least one reference model~~plurality of reference models from among the plurality of reference models stored in said reference model storing unit, based on the received usage information.

29. **(Currently Amended)** A standard model creating apparatus for creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the standard model creating apparatus using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the standard model creating apparatus comprising:

a reference model storing unit operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating unit operable to create the standard model by calculating statistics of the standard model using statistics of ~~at least one of~~ the plurality of reference models stored in said reference model storing unit,

wherein said standard model creating unit includes:

a standard model structure determining unit operable to determine a structure of the standard model which is to be created, based on at least one of specification information regarding specifications of the standard model which is to be created, and usage information regarding an attribute which is an object of speech recognition;

an initial standard model creating unit operable to determine initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating unit operable to estimate and calculate the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models.

30. **(Previously Presented)** The standard model creating apparatus according to claim 29,

wherein the specification information shows at least one of a type of an application program which uses the standard model, and specifications of an apparatus which uses the standard model.

31. **(Previously Presented)** The standard model creating apparatus according to claim 29,

wherein the attribute includes information regarding at least one of an age, a gender, a texture of a speaker's voice, a tone of voice changed with emotions or health condition, a speaking rate, civility in utterance, a dialect, a type of background noise, loudness of background noise, an S/N ratio between speech and background noise, a microphone quality, and a degree of complexity in recognizable vocabulary.

32. **(Previously Presented)** The standard model creating apparatus according to claim 29, further comprising:

a specification information holding unit operable to store an application/specifications correspondence database showing a correspondence between an application program which uses the standard model and specifications of the standard model,

wherein said standard model structure determining unit is operable to read specifications corresponding to an application program to be activated from the application/specifications correspondence database held by said specification information holding unit, and to determine the structure of the standard model based on the read specifications.

33. **(Previously Presented)** The standard model creating apparatus according to claim 29, further comprising:

a specification information creating unit operable to create the specification information,

wherein said standard model structure determining unit is operable to determine the structure of the standard model based on the created specification information.

34. **(Previously Presented)** The standard model creating apparatus according to claim 29, wherein the standard model creating apparatus is connected to a terminal apparatus via a communication channel, and further comprises:

a specification information receiving unit operable to receive the specification information from the terminal apparatus,

wherein said standard model structure determining unit is operable to determine the structure of the standard model based on the received specification information.

35. **(Currently Amended)**   The standard model creating apparatus according to claim 29,

wherein the ~~at least one reference model~~plurality of reference models and the standard model are expressed using at least one Gaussian distribution, and

said standard model structure determining unit is operable to determine at least a number of Gaussian mixture distributions as the structure of the standard model.

36. **(Currently Amended)**   A standard model creating apparatus for creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the standard model creating apparatus using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the standard model creating apparatus comprising:

a reference model storing unit operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating unit operable to create the standard model by calculating statistics of the standard model using statistics of ~~at least one of~~ the plurality of reference models stored in said reference model storing unit,

wherein said standard model creating unit includes:

a standard model structure determining unit operable to determine a structure of the standard model which is to be created;

an initial standard model creating unit operable to determine initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating unit operable to estimate and calculate the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models,

- 6 -

wherein the ~~at least one reference model~~<u>plurality of reference models</u> and the standard model are expressed using at least one Gaussian distribution,

said reference model storing unit is operable to store a pair of reference models, each having at least a different number of Gaussian mixture distributions, and

said statistics estimating unit is operable to calculate the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model with respect to the pair of reference models.

37. **(Currently Amended)**   A standard model creating apparatus for creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the standard model creating apparatus using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the standard model creating apparatus comprising:

a reference model storing unit operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute;

a reference model preparing unit operable to perform at least one of (1) obtaining a reference model from an outside source and storing the obtained reference model in said reference model storing unit; and (2) creating a new reference model and storing the new reference model in said reference model storing unit, and at least one of (i) updating and (ii) adding to the plurality of reference models stored in said reference model storing unit; and

a standard model creating unit operable to create the standard model by calculating statistics of the standard model using statistics of ~~at least one of~~ the plurality of reference models stored in said reference model storing unit,

wherein said standard model creating unit includes:

a standard model structure determining unit operable to determine a structure of the standard model which is to be created;

an initial standard model creating unit operable to determine initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating unit operable to estimate and calculate the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models.

38. **(Previously Presented)** The standard model creating apparatus according to claim 37,

wherein said reference model preparing unit is operable to perform at least one of an update and an addition to the plurality of reference models stored in said reference model storing unit, based on at least one of usage information regarding an object of recognition, and specification information regarding specifications of the standard model which is to be created.

39. **(Currently Amended)** The standard model creating apparatus according to claim 37, further comprising:

a similarity information creating unit operable to create,

based on the ~~at least one reference model~~plurality of reference models stored in said reference model storing unit and at least one of specification information regarding specifications of the standard model which is to be created, and usage information regarding an attribute which is an object of speech recognition,

similarity information showing a degree of similarity to the ~~at least one reference model~~plurality of reference models and at least one of the usage information and the specification information,

wherein said reference model preparing unit is operable to determine whether or not to perform at least one of an update and an addition to the plurality of reference

models stored in said reference model storing unit, based on the similarity information created by said similarity information creating unit.

40. **(Currently Amended)** A standard model creating apparatus for creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the standard model creating apparatus using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the standard model creating apparatus comprising:

a reference model storing unit operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating unit operable to create the standard model by calculating statistics of the standard model using statistics ~~of at least one~~ of the plurality of reference models stored in said reference model storing unit,

wherein said standard model creating unit includes:

a standard model structure determining unit operable to determine a structure of the standard model which is to be created;

an initial standard model creating unit operable to determine, based on a class ID that identifies a type of the standard model, initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating unit operable to estimate and calculate the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models.

41. **(Currently Amended)** The standard model creating apparatus according to claim 40,

wherein said initial standard model creating unit is operable to specify the class ID from the ~~at least one reference model~~plurality of reference models and to determine initial values associated with the specified ID as the initial values.

42. **(Previously Presented)** The standard model creating apparatus according to claim 41,

wherein said initial standard model creating unit is operable to store a correspondence table showing a correspondence among the class ID, the initial values, and the reference model, and to determine the initial values in accordance with the correspondence table.

43. **(Previously Presented)** The standard model creating apparatus according to claim 42,

wherein said initial standard model creating unit is operable to generate the correspondence table by creating, or by obtaining from an outside source, an initial standard model with a class ID, that is, initial values associated with the class ID, or a reference model with a class ID, that is, a reference model associated with the class ID.

44. **(Currently Amended)** A method of creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the method using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the method comprising:

a reference model reading step of selecting and reading, based on usage information regarding an attribute which is an object of speech recognition, ~~at least one reference model~~plurality of reference models from a reference model storing unit which is operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating step of creating the standard model by calculating statistics of the standard model using statistics of the ~~at least one reference model~~plurality of reference models read in the reference model reading step,

wherein the standard model creating step includes:

a standard model structure determining sub-step of determining a structure of the standard model which is to be created;

an initial standard model creating sub-step of determining initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating sub-step of estimating and calculating the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models.

45. **(Currently Amended)** A program stored on a computer-readable medium which when executed causes a standard model creating apparatus to perform steps for creating a standard model that shows an acoustic characteristic having a specific attribute and that is used for speech recognition, the program using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the steps comprising:

a reference model reading step of selecting and reading, based on usage information regarding an attribute which is an object of speech recognition, ~~at least one reference model~~plurality of reference models from a reference model storing unit which is operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating step of creating the standard model by calculating statistics of the standard model using statistics of the ~~at least one reference model~~plurality of reference models read in the reference model reading step,

wherein the standard model creating step includes:

a standard model structure determining sub-step of determining a structure of the standard model which is to be created;

an initial standard model creating sub-step of determining initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating sub-step of estimating and calculating the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models.

46. **(Currently Amended)**   A method of creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the method using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the method comprising:

a reference model reading step of reading ~~at least one reference model~~plurality of reference models from a reference model storing unit which is operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating step of creating the standard model by calculating statistics of the standard model using statistics of the ~~at least one reference model~~plurality of reference models that has been read,

wherein the standard model creating step includes:

a standard model structure determining sub-step of determining a structure of the standard model which is to be created, based on at least one of specification information regarding specifications of the standard model which is to be created, and usage information regarding an attribute which is an object of speech recognition;

an initial standard model creating sub-step of determining initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating sub-step of estimating and calculating the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to ~~at least one reference model~~plurality of reference models.

47. **(Currently Amended)**   A program stored on a computer-readable medium which when executed causes a standard model creating apparatus to perform steps for creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the program using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the steps comprising:

a reference model reading step of reading ~~at least one reference model~~plurality of reference models from a reference model storing unit which is operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating step of creating the standard model by calculating statistics of the standard model using statistics of the ~~at least one reference model~~plurality of reference models that has been read,

wherein the standard model creating step includes:

a standard model structure determining sub-step operable to determine a structure of the standard model which is to be created, based on at least one of specification information regarding specifications of the standard model which is to be created, and usage information regarding an attribute which is an object of speech recognition;

an initial standard model creating sub-step of determining initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating sub-step of estimating and calculating the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models.

48. **(Currently Amended)**   A standard model creating apparatus for creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the standard model creating apparatus using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the standard model creating apparatus comprising:

a reference model storing unit operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute;

a reference model selecting unit operable to select ~~at least one reference model~~plurality of reference models from among the plurality of reference models stored in said reference model storing unit, based on usage information regarding an attribute which is an object of speech recognition; and

a standard model creating unit operable to create the standard model by calculating statistics of the standard model using statistics of the ~~at least one reference model~~plurality of reference models selected by said reference model selection unit,

wherein said standard model creating unit includes:

a standard model structure determining unit operable to determine a structure of the standard model which is to be created;

an initial standard model creating unit operable to determine initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating unit operable to estimate and calculate the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models, and

wherein the standard model is created from the ~~at least one reference model~~plurality of reference models and the standard model is used for speech recognition.

49. **(Currently Amended)**   A standard model creating apparatus for creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the standard model creating apparatus using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the standard model creating apparatus comprising:

a reference model storing unit operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating unit operable to create the standard model by calculating statistics of the standard model using statistics ~~of at least one~~ of the plurality of reference models stored in said reference model storing unit,

wherein said standard model creating unit includes:

a standard model structure determining unit operable to determine a structure of the standard model which is to be created, based on at least one of specification information regarding specifications of the standard model which is to be created, and usage information regarding an attribute which is an object of speech recognition;

an initial standard model creating unit operable to determine initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating unit operable to estimate and calculate the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models, and

wherein the standard model is created from the ~~at least one reference model~~plurality of reference models and the standard model is used for speech recognition.

50. **(Currently Amended)** A standard model creating apparatus for creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the standard model creating apparatus using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the standard model creating apparatus comprising:

a reference model storing unit operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating unit operable to create the standard model by calculating statistics of the standard model using statistics ~~of at least one~~ of the plurality of reference models stored in said reference model storing unit,

wherein said standard model creating unit includes:

a standard model structure determining unit operable to determine a structure of the standard model which is to be created;

an initial standard model creating unit operable to determine initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating unit operable to estimate and calculate the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models,

wherein the ~~at least one reference model~~plurality of reference models and the standard model are expressed using at least one Gaussian distribution,

said reference model storing unit is operable to store a pair of reference models, each having at least a different number of Gaussian mixture distributions, and

said statistics estimating unit is operable to calculate the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model with respect to the pair of reference models, and

wherein the standard model is created from the ~~at least one reference model~~plurality of reference models and the standard model is used for speech recognition.

51. **(Currently Amended)**   A standard model creating apparatus for creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the standard model creating apparatus using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the standard model creating apparatus comprising:

a reference model storing unit operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute;

a reference model preparing unit operable to perform at least one of (1) obtaining a reference model from an outside source and storing the obtained reference model in said reference model storing unit; and (2) creating a new reference model and storing the new reference model in said reference model storing unit and at least one of (i) updating and (ii) adding to the plurality of reference models stored in said reference model storing unit; and

a standard model creating unit operable to create the standard model by calculating statistics of the standard model using statistics ~~of at least one~~ of the plurality of reference models stored in said reference model storing unit,

wherein said standard model creating unit includes:

a standard model structure determining unit operable to determine a structure of the standard model which is to be created;

an initial standard model creating unit operable to determine initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating unit operable to estimate and calculate the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the

standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models, and

wherein the standard model is created from the ~~at least one reference model~~plurality of reference models and the standard model is used for speech recognition.

52. **(Currently Amended)**   A standard model creating apparatus for creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the standard model creating apparatus using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the standard model creating apparatus comprising:

a reference model storing unit operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating unit operable to create the standard model by calculating statistics of the standard model using statistics ~~of at least one~~ of the plurality of reference models stored in said reference model storing unit,

wherein said standard model creating unit includes:

a standard model structure determining unit operable to determine a structure of the standard model which is to be created;

an initial standard model creating unit operable to determine, based on a class ID that identifies a type of the standard model, initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating unit operable to estimate and calculate the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models.

53. **(Currently Amended)**   A method of creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the method using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the method comprising:

a reference model reading step of selecting and reading, based on usage information regarding an attribute which is an object of speech recognition, ~~at least one reference model~~plurality of reference models from a reference model storing unit which is operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating step of creating the standard model by calculating statistics of the standard model using statistics of the ~~at least one reference model~~plurality of reference models read in the reference model reading step,

wherein the standard model creating step includes:

a standard model structure determining sub-step of determining a structure of the standard model which is to be created;

an initial standard model creating sub-step of determining initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating sub-step of estimating and calculating the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models, and

wherein the standard model is created from the ~~at least one reference model~~plurality of reference models and the standard model is used for speech recognition.

54. **(Currently Amended)**   A program stored on a computer-readable medium which when executed causes a standard model creating apparatus to perform steps for creating a standard model that shows an acoustic characteristic having a specific attribute and that is used for speech recognition, the program using a probability model that expresses a

frequency parameter showing an acoustic characteristic as an output probability, the steps comprising:

a reference model reading step of selecting and reading, based on usage information regarding an attribute which is an object of speech recognition, ~~at least one reference model~~plurality of reference models from a reference model storing unit which is operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating step of creating the standard model by calculating statistics of the standard model using statistics of the ~~at least one reference model~~plurality of reference models read in the reference model reading step,

wherein the standard model creating step includes:

a standard model structure determining sub-step of determining a structure of the standard model which is to be created;

an initial standard model creating sub-step of determining initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating sub-step of estimating and calculating the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the reference model, and

wherein the standard model is created from the ~~at least one reference model~~plurality of reference models and the standard model is used for speech recognition.

55. **(Currently Amended)**   A method of creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the method using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the method comprising:

a reference model reading step of reading ~~at least one reference model~~plurality of reference models from a reference model storing unit which is operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating step of creating the standard model by calculating statistics of the standard model using statistics of the ~~at least one reference model~~plurality of reference models that has been read,

wherein the standard model creating step includes:

a standard model structure determining sub-step of determining a structure of the standard model which is to be created, based on at least one of specification information regarding specifications of the standard model which is to be created, and usage information regarding an attribute which is an object of speech recognition;

an initial standard model creating sub-step of determining initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating sub-step of estimating and calculating the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models, and

wherein the standard model is created from the ~~at least one reference model~~plurality of reference models and the standard model is used for speech recognition.

56. **(Currently Amended)** A program stored on a computer-readable medium which when executed causes a standard model creating apparatus to perform steps for creating a standard model which shows an acoustic characteristic having a specific attribute and is used for speech recognition, the program using a probability model that expresses a frequency parameter showing an acoustic characteristic as an output probability, the steps comprising:

a reference model reading step of reading ~~at least one reference model~~plurality of reference models from a reference model storing unit which is operable to store a plurality of reference models which are probability models showing an acoustic characteristic having a specific attribute; and

a standard model creating step of creating the standard model by calculating statistics of the standard model using statistics of the ~~at least one reference model~~plurality of reference models that has been read,

wherein the standard model creating step includes:

a standard model structure determining sub-step operable to determine a structure of the standard model which is to be created, based on at least one of specification information regarding specifications of the standard model which is to be created, and usage information regarding an attribute which is an object of speech recognition;

an initial standard model creating sub-step of determining initial values of the statistics specifying the standard model whose structure has been determined; and

a statistics estimating sub-step of estimating and calculating the statistics of the standard model so as to maximize or locally maximize a probability or a likelihood of the standard model, whose initial values have been determined, with respect to the ~~at least one reference model~~plurality of reference models, and

wherein the standard model is created from the ~~at least one reference model~~plurality of reference models and the standard model is used for speech recognition.

57. (New) The standard model creating apparatus according to Claim 26,

wherein the standard model is expressed using a mixture of a plurality of Gaussian distributions, and

said statistics estimating unit is operable to estimate and calculate a mixture weighting coefficient, a mean value, and a variance of each of the plurality of Gaussian distributions, as the statistics of the standard model.

58. **(New)** The standard model creating apparatus according to Claim 26,

wherein the reference model is expressed using output distributions for a plurality of states, and

said statistics estimating unit is operable to estimate and calculate a mixture weighting coefficient, a mean value, and a variance of each of a plurality of Gaussian distributions, as the statistics of the standard model that maximizes or locally maximizes the probability or the likelihood of the standard model, with respect to each of the output distributions in the plurality of states of the reference model.